

**FAIRCHILD**

A Schlumberger Company

**FDH400/FDLL400  
FDH444/FDLL444**High Voltage General  
Purpose Diodes

T-01-09

- BV... 200 V (MIN) FDH400  
... 150 V (MIN) FDH444
- $V_F$ ... 1.1 V (MAX) @ 300 mA FDH400  
@ 200 mA FDH444

**ABSOLUTE MAXIMUM RATINGS (Note 1)****Temperatures**

Storage Temperature Range  
Max Junction Operating Temperature  
Lead Temperature

-65°C to +200°C  
+175°C  
+260°C

If you need this device in the  
SOT package, an electrical  
equivalent is available. See  
FDS01400 family.

**Power Dissipation (Note 2)**

Maximum Total Dissipation at 25°C Ambient  
Linear Derating Factor (from 25°C)

500 mW  
3.33 mW/°C

**Maximum Voltage and Currents**

WIV Working Inverse Voltage  
 $I_O$  Average Rectified Current  
 $I_F$  Forward Current Steady State  
 $I_F$  Recurrent Peak Forward Current  
 $I_F$ (surge) Peak Forward Surge Current  
Pulse width = 1.0 s  
Pulse width = 1.0  $\mu$ s

**FDH400**

175 V

200 mA

500 mA

600 mA

1.0 A

4.0 A

**FDH444**

125 V

200 mA

500 mA

600 mA

1.0 A

4.0 A

**PACKAGES**

FDH400 DO-35

FDH444 DO-35

FDLL400 LL-34

FDLL444 LL-34

**ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)**

SYMBOL	CHARACTERISTIC	FDH400		FDH444		UNITS	TEST CONDITIONS
		MIN	MAX	MIN	MAX		
VF	Forward Voltage		1.1 1.0		1.2 1.1	V V	$I_F = 300$ mA $I_F = 200$ mA
BV	Breakdown Voltage	200		150		V	$I_R = 100$ $\mu$ A
$I_R$	Reverse Current		100 100		50 100	nA nA $\mu$ A $\mu$ A	$V_R = 150$ V $V_R = 100$ V $V_R = 150$ V, $T_A = 150^\circ$ C $V_R = 100$ V, $T_A = 150^\circ$ C
C	Capacitance		2.0		2.5	pF	$V_R = 0$ , $f = 1.0$ MHz
$t_{rr}$	Reverse Recovery Time		50		60	ns	$I_F = 30$ mA, $I_R = 30$ mA $R_L = 100$ $\Omega$ , $I_{rr} = 3.0$ mA

**NOTES:**

1. The maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. For product family characteristic curves, refer to Chapter 4, D1.